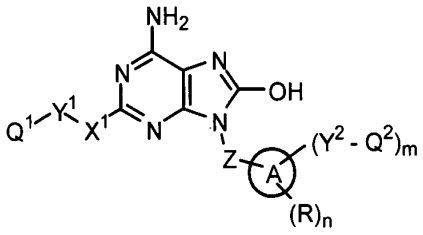
CLAIM

1. A topically administrable medicament containing an adenine compound represented by a general formula (1):



, wherein

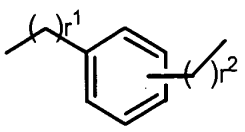
Ring A is a 6 to 10 membered mono or bicyclic aromatic hydrocarbon ring or a 5 to 10 membered mono or bicyclic heteroaromatic ring containing 1 to 3 hetero atoms selected from the group of 0 to 2 nitrogen atoms, 0 or 1 oxygen atom and 0 or 1 sulfur atom,

n is an integer selected from 0 to 2, m is an integer selected from 0 to 2,

R is halogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkoxy group, or substituted or unsubstituted amino group, and when n is 2, R(s) may be the same or different,

X^1 is oxygen atom, sulfur atom, NR^1 (wherein R^1 is hydrogen atom or alkyl group) or a single bond,

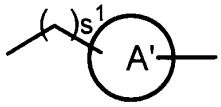
Y^1 is a single bond, alkylene which may be substituted by oxo group, or divalent group of the formula below:



(wherein r^1 and r^2 are independently an integer selected from 1 to 3),

Y^2 is a single bond, alkylene optionally substituted by hydroxy group or oxo group, oxyalkylene, cycloalkylene, oxycycloalkylene, divalent group

of a monocyclic hetero ring containing 1 or 2 hetero atoms selected from the group consisting of 1 or 2 nitrogen atoms wherein said nitrogen atom may be substituted, oxygen atoms and sulfur atoms wherein said sulfur atom(s) may be oxidized by 1 or 2 oxygen atoms, or divalent group of the formula below:



(wherein A' is cycloalkylene, s^1 is an integer selected from 1 to 3),

Z is alkylene,

Q^1 is hydrogen atom, halogen atom, hydroxy group, alkoxy group, or a group selected from the group consisting of Substituents illustrated below,

Q^2 is a group selected from the group consisting of Substituents illustrated below,

R^{10} or R^{11} in Q^2 may be taken with R to form a 9 to 14 membered fused bi or tricyclic ring together with the adjacent Ring A,

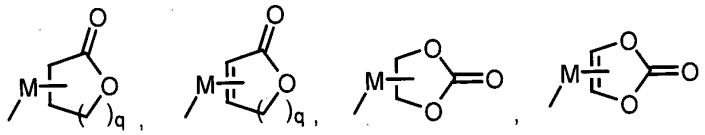
when m is 0, Q^1 is a group selected from the group consisting of Substituents illustrated below,

Substituents: $-COOR^{10}$; $-COSR^{10}$; $-OCOOR^{10}$; $-OCOR^{10}$; $-CONR^{11}R^{12}$; $-OCONR^{11}R^{12}$

(wherein R^{10} is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkeny group, substituted or unsubstituted cycloalkeny group, or substituted or unsubstituted alkynyl group, R^{11} and R^{12} are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkeny group, substituted or unsubstituted cycloalkeny group, or substituted or unsubstituted alkynyl group, or R^{11} and R^{12}may are taken together to

form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3),

and when m is 2, $(Y^2\text{-}Q^2)$(s) may be the same or different,

or a pharmaceutically acceptable salt thereof as an active ingredient.

2 The topically administrable medicament according to claim 1, wherein in the general formula (1), at least one of Q^1 and Q^2 is $-COOR^{10}$, $-COSR^{10}$, $-OCOR^{10}$, $-OCOOR^{10}$ or $-CONR^{11}R^{12}$.

3 The topically administrable medicament according to claim 1 or 2, wherein in the general formula (1), the substituent(s), by which alkyl group, alkeny group or alkynyl group in R^{10}, R^{11} and R^{12} is substituted, are the same or different and at least one substituent selected from the group consisting of halogen atom, hydroxy group, substituted or unsubstituted alkoxy group, substituted or unsubstituted amino group, substituted or unsubstituted aryl group, and substituted or unsubstituted heterocyclic group.

4. The topically administrable medicament according to any one of claim 1 to 3, wherein in the general formula (1), Z is methylene and Ring A is benzene.

5. The topically administrable medicament according to claim 4, wherein in the general formula (1), Y^1 is $C_{1\text{-}5}$ alkylene, Q^1 is hydrogen atom, hydroxy group or alkoxy group, Y^2 is a single bond, and Q^2 is -

$COOR^{10}$.

6. The topically administrable medicament according to claim 5, wherein in the general formula (1), Z is methylene, Ring A is benzene, R^{10} is alkyl group substituted by hydroxy group, amino group, alkylamino group or dialkylamino group, and m is 1.

7. The topically administrable medicament according to claim 4, wherein in the general formula (1), $Y^1$is C_{1-5} alkylene, Q^1 is hydrogen atom, hydroxy group or alkoxy group, Y^2 is C_{1-3} alkylene, Q^2 is $-COOR^{10}$, and m is 1.

8. The topically administrable medicament according to claim 4, wherein in the general formula (1), m is 0, Y^1 is C_{1-6} alkylene which may be substituted with oxo group, and Q^1 is $-COOR^{10}$, $-COSR^{10}$, $-OCOR^{10}$, $-OCOOR^{10}$, $-CONR^{11}R^{12}$ or $-OCONR^{11}R^{12}$.

9. The topically administrable medicament according to any one of claims 1 to 8, wherein in the general formula (1), and X^1 is oxygen atom, sulfur atom or NR^1 (wherein R^1 is hydrogen atom or alkyl group).

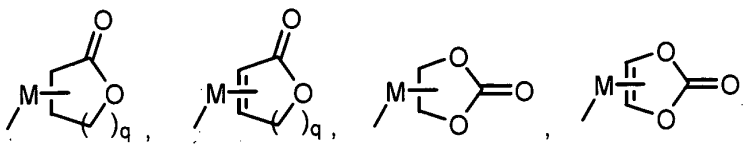
10. The topically administrable medicament according to any one of claims 1 to 4, wherein in the general formula (1), m is 0, X^1 is a single bond, Y^1 is C_{1-4} alkylene which may be substituted by oxo group, and Q^1 is $-COOR^{10}$.

11. The topically administrable medicament according to any one of claims 1 to 10, wherein in the general formula (1), the limitation is either 1) or 2) below:

1) n is 0;

2) n is 1 or 2, and R is alkyl group, alkoxy group or halogen atom.

12. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, at least one of Q^1 and Q^2 is a substituent selected from the following formulae (3) ~ (6):



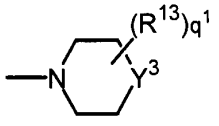
(3) (4) (5) (6)

, wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3.

13. The adenine compound or its pharmaceutically acceptable salt described, wherein in the general formula (1) described in claim 1, at least one of Q^1 and Q^2 is $-COSR^{10}$, $-OCOOR^{10}$, $-OCOR^{10}$ or $-OCONR^{11}R^{12}$ (wherein R^{10}, R^{11} and R^{12} are the same as defined in claim 1).

14. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Q is $-COOR^{20}$, wherein R^{20} is substituted or unsubstituted alkeny group or substituted or unsubstituted alkynyl group.

15. The adenine compound or its pharmaceutically acceptable salt described, wherein in the general formula (1) described in claim 1, Q^1 is $-CONR^{21}R^{22}$ (wherein $R^{21}$and R^{22} are independently, substituted or unsubstituted alkeny group or substituted or unsubstituted alkynyl group, or R^{21} and R^{22} are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocyclic ring containing a nitrogen atom represented by the formula (2):



(2)

, wherein Y^3 is a single bond, methylene, oxygen atom, sulfur atom, SO, SO_2, NR^{14} (wherein R^{14} is hydrogen atom, C_{1-4} alkyl group, C_{2-4} alkylcarbonyl group, C_{2-4} alkoxycarbonyl group or C_{1-4} alkylsulfonyl group),

q^1 is an integer selected from 0 to 4, and

R^{13} is hydroxy group, carboxy group, C_{1-4} alkyl group, C_{1-4} alkoxy group or C_{2-4} alkoxycarbonyl group.

16. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Z is methylene, and Ring A is naphthalene.

17. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Z is methylene, Ring A is a 5 to 10 membered mono or bicyclic hetero ring containing 1 to 3 heteroatoms selected from the group consisting of 0 to 2 nitrogen atoms, 0 or 1 oxygen atom, and 0 or 1 sulfur atom.

18. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, the heteroaromatic ring in Ring A is furan, thiophene, or pyridine.

19. The adenine compound or its pharmaceutically acceptable salt according to any one of claims 16 to 18, wherein in the general formula (1) described in claim 1, Q^1 is hydrogen atom, hydroxy group or alkoxy group, Y^1 is C_{1-5} alkylene, Q^2 is $-COOR^{10}$ (wherein R^{10} is the same as defined in claim 1), and m is 1.

20. The adenine compound or its pharmaceutically acceptable salt according to claim 19, wherein in the general formula (1) described in claim 1, Y^2 is a single bond.

21. The adenine compound, its tautomer or its pharmaceutically acceptable salt according to any one of claims 16 to 18, wherein in the general formula (1) described in claim 1, m is 0, Y^1 is C_{1-6} alkylene which may be substituted by oxo group, and Q^1 is $-COOR^{10}$, $-COSR^{10}$, $-OCOR^{10}$, $-OCOOR^{10}$, $-CONR^{11}R^{12}$ or $-OCONR^{11}R^{12}$ (wherein R^{10}, R^{11} and R^{12} are the same as defined in claim 1).

22. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Y^2 is alkylene or oxyalkylene, Q^2 is $-COSR^{10}$ or $-CONR^{11}R^{12}$ (wherein R^{10}, R^{11} and R^{12} is the same as defined in claim 1).

23. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Y^2 is divalent group of a saturated monocyclic heteroring containing 1 or 2 hetero atoms selected from substituted or unsubstituted 1 or 2 nitrogen atoms, oxygen atoms and sulfur atoms (said sulfur atom may be oxidized by 1 or 2 oxygen atoms).

24. The adenine compound or its pharmaceutically acceptable salt according to claim 23, wherein the divalent group of the saturated monocyclic heteroring is piperazin-1,4-diyl.

25. The adenine compound or its pharmaceutically acceptable salt described according to claim 23 or 24, wherein in the general formula (1) described in claim 1, Q^2 is $-COOR^{10}$ (wherein R^{10} is the same as defined in claim 1).

26. The adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 25, wherein in the general formula (1) descried in claim 1, the substituent(s) by which alkyl group, alkeny group or alkynyl group in R^{10}, R^{11}, R^{12}, R^{20}, R^{21} and R^{22} is substituted, are at least one substituent selected from the group consisting of halogen atom, hydroxy group, substituted or unsubstituted alkoxy group, substituted or unsubstituted amino group, substituted or unsubstituted aryl group, and substituted or unsubstituted heterocyclic group.

27. The adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 25, wherein R is hydrogen atom,

alkyl group, alkoxy group, or halogen atom.

28. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Z is methylene, Ring A is benzene, $Q^1$is hydrogen atom, hydroxy group or alkoxy group, Y^1 is C_{1-5} alkylene, Y^2 is a single bond, Q^2 is -$COOR^{23}$ (wherein R^{23} is alkyl group substituted by amino group, alkylamino group or dialkylamino group), and m is 1.

29. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Z is methylene, Ring A is benzene, $Q^1$is hydrogen atom, hydroxy group or alkoxy group, Y^1 is C_{1-5} alkylene, Y^2 is a single bond, and Q^2 is -$COSR^{24}$(wherein R^{24} is hydroxy group or alkyl group which is substituted by substituted or unsubstituted amino group).

30. The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1) described in claim 1, Z is methylene, Ring A is benzene, Q^1 is hydrogen atom, hydroxy group or alkoxy group, Y^1 is C_{1-5} alkylene, Y^2 is a single bond, and Q^2 is -$CONR^{25}R^{26}$ (wherein R^{25} is hydrogen atom, alkyl group, alkeny group, or alkynyl group, and R^{26} is hydroxy group, or alkyl group which is substituted by substituted or unsubstituted amino group).

31. The adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 30, wherein in the general formula (1), $X^1$is oxygen atom, sulfur atom or NR^1 (wherein R^1 is hydrogen atom or alkyl group).

32. A medicament containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 30 as an active ingredient.

33. A pharmaceutical composition containing the adenine compound

or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

34. An immunoregulating agent containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

35. A prophylactic or therapeutic agent for viral diseases containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

36. A prophylactic or therapeutic agent for allergic diseases containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

37. A prophylactic or therapeutic agent for allergic diseases according to claim 36, wherein the disease is asthma or atopic dermatosis.

38. A prophylactic or therapeutic agent for cancer diseases containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

39. A topically administrable preparation containing the adenine compound or its pharmaceutically acceptable salt according to any one of claims 12 to 31 as an active ingredient.

40. The topically administrable preparation according to any one of claims 1 to 11, wherein the preparation is a prophylactic or therapeutic agent for viral diseases, dermal diseases or allergic diseases.

41. The topically administrable preparation according to claim 40 wherein the allergic disease is asthma.

42. The topically administrable preparation according to claim 40 wherein the allergic disease is atopic dermatosis.

43. The topically administrable preparation according to any one of claims 1 to 11 and 39 to 42, wherein the half-life in serum on the

compound of the general formula (1) is less than 1 hour.

44. The topically administrable preparation according to any one of claims 1 to 11 and 39 to 42, wherein the half-life in lever S9 on the compound of the general formula (1) is less than 1 hour.

45. The topically administrable preparation according to any one of claims 1 to 11 and 39 to 42, wherein the interferon concentration in serum is less than 10 IU/ml after said compound is topically administered.

46. The topically administrable preparation according to any one of claims 1 to 11 and 39 to 42, wherein the preparation is an inhalation formulation.